

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date
13 January 2005 (13.01.2005)

PCT

(10) International Publication Number
WO 2005/003781 A3

(51) International Patent Classification⁷:

G01N 33/68

(21) International Application Number:

PCT/EP2004/007047

(22) International Filing Date: 29 June 2004 (29.06.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

60/484,153

30 June 2003 (30.06.2003) US

(71) Applicant (for all designated States except US): **GENOVA LTD.**; Canon's Court, 22 Victoria Street, Hamilton HM12 (BM).

(71) Applicant (for AT only): **NOVARTIS PHARMA GMBH** [AT/AT]; Brunner Strasse 59, A-1230 Vienna (AT).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **BOUGUELERET, Lydie** [FR/CH]; GeneProt, Inc., 2, Pre-de-la-Fontaine, CH-1217 Meyrin (CH). **CUSIN, Isabelle** [FR/CH]; GeneProt, Inc., 2, Pre-de-la-Fontaine, CH-1217 Meyrin (CH).

(74) Agent: **GRUBB, Philip**; Novartis AG, Corporate Intellectual Property, CH-4002 Basel (CH).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

(88) Date of publication of the international search report:
16 June 2005

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

WO 2005/003781 A3

(54) Title: SECRETED POLYPEPTIDE SPECIES ASSOCIATED WITH CARDIOVASCULAR DISORDERS

(57) Abstract: The invention discloses human secreted polypeptides that circulate at an increased level in the plasma of patients with cardiovascular disorders. The invention also provides methods of using compositions including the polypeptides, polynucleotides encoding them, and antibodies specific for these polypeptides, for diagnosis, prognosis, and treatment of cardiovascular disorders.

INTERNATIONAL SEARCH REPORT

International Application No
PCT/EP2004/007047

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 G01N33/68

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 G01N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, BIOSIS, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 99/55858 A (SCHMITT ARMIN ; SPECHT THOMAS (DE); DAHL EDGAR (DE); HINZMANN BERND (D) 4 November 1999 (1999-11-04) abstract; sequence 307 page 393, paragraph 4 the whole document	8-10
Y		11-13
A		1-7, 14-20
X	----- WO 03/022992 A (SCHERING CORP) 20 March 2003 (2003-03-20) sequence 22	8
A	-----	1-7,9-20
X	----- WO 02/079492 A (EOS BIOTECHNOLOGY INC) 10 October 2002 (2002-10-10) page 37, last paragraph paragraph [0002]; claim 17; sequence 30	8,9
Y		11-13
A	----- the whole document	1-7,10, 14-20
		-/-

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

* Special categories of cited documents :

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
- *&* document member of the same patent family

Date of the actual completion of the international search

23 November 2004

Date of mailing of the international search report

11.04.05

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Bigot-Maucher, C

INTERNATIONAL SEARCH REPORT

International Application No
PCT/EP2004/007047

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>DATABASE MEDLINE [Online] US NATIONAL LIBRARY OF MEDICINE (NLM), BETHESDA, MD, US; July 1990 (1990-07), MASKOLIUNAS R K ET AL: "[Various characteristics of protein-synthesizing apparatus of the myocardium during total ischemia]" XP002302648 Database accession no. NLM2238536 abstract & VOPROSY MEDITSINSKOI KHIMII. 1990 JUL-AUG, vol. 36, no. 4, July 1990 (1990-07), pages 7-10, ISSN: 0042-8809</p> <p>-----</p>	1-20

INTERNATIONAL SEARCH REPORT

International application No.
PCT/EP2004/007047

Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. Claims Nos.: because they relate to subject matter not required to be searched by this Authority, namely:

2. Claims Nos.: because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:

3. Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box III Observations where unity of Invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this International application, as follows:

see additional sheet

1. As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.

2. As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.

3. As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:

4. No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1-7, 8-16 (partially), 18-20

Remark on Protest

The additional search fees were accompanied by the applicant's protest.
 No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-7, 8-16 (partially), 18-20

method of screening for and /or diagnosis of or method of predicting or method of identifying a modulator of or method for monitoring efficacy of treatment of cardiovascular disorder using polypeptide comprising SEQ ID NO: 3, polypeptide comprising SEQ ID NO: 3 and its use for the prophylaxis and/or treatment of cardiovascular disorders or for identifying a modulator, antibody binding to said polypeptide and its use for the prophylaxis and/or treatment of cardiovascular disorder, method of binding said antibody thereto

2. claims: 8-16 (partially), 17

polypeptide comprising SEQ ID NO: 1 and its use for the prophylaxis and/or treatment of cardiovascular disorders or for identifying a modulator, antibody binding to said polypeptide and its use for the prophylaxis and/or treatment of cardiovascular disorder, method of binding said antibody thereto, polynucleotide comprising cDNA coding for a the polypeptide having the SEQ ID NO: 1

3. claims: 8-16 (partially)

polypeptide comprising SEQ ID NO: 2 and its use for the prophylaxis and/or treatment of cardiovascular disorders or for identifying a modulator, antibody binding to said polypeptide and its use for the prophylaxis and/or treatment of cardiovascular disorder, method of binding said antibody thereto

4. claims: 8-13 (partially)

polypeptide comprising SEQ ID NO: 4 and its use for the prophylaxis and/or treatment of cardiovascular disorders or for identifying a modulator, antibody binding to said polypeptide and its use in a method of binding to a cardiovascular disorder plasma polypeptide

5. claims: 8-13 (partially)

polypeptide comprising SEQ ID NO: 5 and its use for the prophylaxis and/or treatment of cardiovascular disorders or for identifying a modulator, antibody binding to said polypeptide and its use in a method of binding to a cardiovascular disorder plasma polypeptide

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

6. claims: 8-13 (partially)

polypeptide comprising SEQ ID NO: 6 and its use for the prophylaxis and/or treatment of cardiovascular disorders or for identifying a modulator, antibody binding to said polypeptide and its use in a method of binding to a cardiovascular disorder plasma polypeptide

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP2004/007047

Patent document cited in search report		Publication date		Patent family member(s)		Publication date
WO 9955858	A	04-11-1999	DE	19820190 A1		04-11-1999
			WO	9955858 A2		04-11-1999
			EP	1076700 A2		21-02-2001
			JP	2002512795 T		08-05-2002

WO 03022992	A	20-03-2003	WO	03022992 A2		20-03-2003
			US	2003134328 A1		17-07-2003

WO 02079492	A	10-10-2002	CA	2438030 A1		10-10-2002
			EP	1418943 A1		19-05-2004
			JP	2004531249 T		14-10-2004
			WO	02079492 A2		10-10-2002
			US	2003152926 A1		14-08-2003
			US	2004009494 A1		15-01-2004
			US	2004259152 A1		23-12-2004
			US	2004033495 A1		19-02-2004
			CA	2444691 A1		31-10-2002
			CA	2451465 A1		27-12-2002
			CA	2453098 A1		16-01-2003
			CA	2459219 A1		27-03-2003
			CA	2467433 A1		22-05-2003
			EP	1463928 A2		06-10-2004
			EP	1408811 A2		21-04-2004
			EP	1434881 A2		07-07-2004
			EP	1497454 A2		19-01-2005
			MX	PA04000080 A		21-05-2004
			WO	02086443 A2		31-10-2002
			WO	02098358 A2		12-12-2002
			WO	02102235 A2		27-12-2002
			WO	03003906 A2		16-01-2003
			WO	03025138 A2		27-03-2003
			WO	03042661 A2		22-05-2003
			US	2004005563 A1		08-01-2004
			US	2004076955 A1		22-04-2004
			US	2003124579 A1		03-07-2003
			US	2003232350 A1		18-12-2003
